REMARKS

Claims 1, 3-22, 25-30, and 32-51 are pending in the above-identified application, and were rejected. With this Amendment no claims were amended, cancelled, or added. Accordingly, claims 1, 3-22, 25-30, and 32-51 remain at issue.

I.   **35 U.S.C. § 102 Anticipation Rejection of Claims**

Claims 1, 3-19, 22, 25-30, 32-44, 47, 48 and 51 were rejected under 35 U.S.C. § 102(b) as being unpatentable by Nafeh (U.S. Patent No. 5,343,251). Applicants respectfully traverse this rejection.

Claim 1 is directed to a signal-processing apparatus, which includes candidate-detecting means, characteristic-extracting means, and detecting means. The candidate-detecting means receives an input signal including at least the first signal part and remaining signal parts in time-divided fashion. The candidate-detecting means also detects, from the input signal, a candidate part of the first signal part in accordance with characteristic patterns of the input signal at prescribed time intervals. The characteristic-extracting means extracts characteristic data indicating the probability of the first signal part from the candidate part detected by the candidate-detecting means or from signal parts preceding and following the candidate part. The detecting means detects the first signal part in accordance with the characteristic data extracted by the characteristic-extracting means. The detecting means includes characteristic-evaluating means for evaluating the possibility that a candidate part is the first signal part on the basis of the characteristic data and the determining means for determining the first signal part from the result of evaluation performed by the characteristic evaluating means. The characteristic-evaluating means evaluates the possibility that the candidate parts is the first signal, on the basis of

characteristic data derived from multiplying weighting values to the characteristic data and adding the weighted characteristic value. The characteristic-evaluating means uses a multi-layer perceptron to determine the possibility that the candidate part of the first signal part.

Nafeh is directed to a method and apparatus for classifying patterns of television programs and commercials. (See Abstract). In Nafeh, broadcast audio and/or video signals are received and decomposed into their components by audio and video decoders. (See col. 2, lines 55-60). Pre-processor 22 extracts the essential elements of the components, and feeds the extraction to the classifier module for signal discerning and pattern classification. (See col. 2, lines 60-65). Module 22 extracts the relevant information or features for the classification task by pre-processing the audio and video signal output of a signal source into a data stream of features. (See col. 3, lines 20-24). The sequence of feature vectors extracted using the preprocessor/feature extraction module are input into the network classifier. (See col. 5, lines 30-33). The total number of inputs to the network is equal to the number of samples (n+1), multiplied by the number of indicators k in the feature vectors. The network consists of multiple layers of synaptic weights and of several hundreds to several thousands of inputs feeding hidden neurons, feeding to one output. (See col. 6, lines 13-18). The single output of the network is used to make a decision as to whether the broadcast is either a commercial or a program, following a detected transition. (See col. 6, lines 18-21). Thus, in Nafeh, all of the extracted features are provided to the network to determine whether the broadcast is a commercial or a program. Nafeh does not detect a candidate part prior to extracting characteristic data indicating the probability of the first signal part from the candidate part. Thus, Nafeh does not disclose or suggest characteristic-extracting means for extracting characteristic data indicating the

probability of the first signal part from the candidate part detected by the candidate-detecting means or from signal parts preceding and following the candidate part, as required by claim 1. Accordingly, claim 1 and claims 3-15, 18, 19, 22, and 25-29 that depend from claim 1 are allowable over Nafeh.

For reasons similar to those discussed above with regard to claim 1, Applicants respectfully submit that independent claims 30, and claims 32-44, 47, 48, and 51 that depend from claim 30 are also allowable over Nafeh. Accordingly, Applicants respectfully request withdrawal of this rejection.

II.   35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 16, 20, 21, 45, 49, and 50 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nafeh (U.S. Patent No. 5,343,251) in view of Shah-Nazaroff et al (U.S. Patent No. 6,671,880). Applicants respectfully traverse this rejection.

As discussed above, Nafeh does not disclose or suggest characteristic-extracting means for extracting characteristic data indicating the probability of the first signal part from the candidate part detected by the candidate-detecting means or from signal parts preceding and following the candidate part. The missing feature is not disclosed or fairly suggests by Shah-Nazaroff. Thus, it would not have been obvious to one skilled in the art at the time the invention to modify the apparatus/method for classifying patterns of television programs and commercials, as disclosed by Nafeh, with the teachings of Shah-Nazaroff et al. to derive claims 16, 20, and 21, which depend from claim 1, or to derive claims 45, 49, and 50, which depend from claim 30. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 17 and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over

Nafeh (U.S. Patent No. 5,343,251) in view of Kawara et al (U.S. Patent No. 6,278,836).

Applicants respectfully traverse this rejection.

As discussed above, Nafeh does not disclose or suggest characteristic-extracting means

for extracting characteristic data indicating the probability of the first signal part from the

candidate part detected by the candidate-detecting means or from signal parts preceding and

following the candidate part. This feature is not disclosed or fairly suggests by Kawara. Thus, it

would not have been obvious to one skilled in the art at the time the invention to modify the

apparatus/method for classifying patterns of television programs and commercials, as disclosed

by Nafeh, with the teachings of Kawara et al. to derive claim 17, which depends from claim 1, or

to derive claim 46, which depends from claim 30. Accordingly, Applicants respectfully request

withdrawal of this rejection.

III.   Conclusion

In view of the above amendments and remarks, Applicants submit that all claims are

clearly allowable over the cited prior art, and respectfully request early and favorable notification

to that effect.

Respectfully submitted,

Dated: October 31, 2005   By:_____
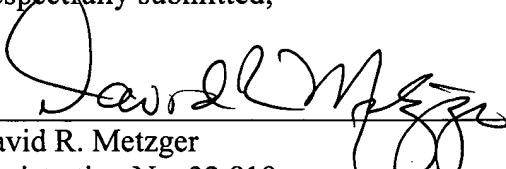
David R. Metzger
Registration No. 32,919
SONNENSCHEIN NATH & ROSENTHAL LLP
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, Illinois 60606-1080
(312) 876-8000

11920197\V-1